

CLAIM AMENDMENTS

Please amend the claims as described below. In accordance with 37 CFR §1.121, a complete listing of all claims in the application is provided below. The status of each claim is indicated in the parenthetical expression adjacent to the corresponding claim number.

Claims 1-31 (Cancelled).

- 1 32. **(Currently Amended)** An electromechanical device comprising:
 - 2 a substrate;
 - 3 an insulation layer disposed on the substrate;
 - 4 a first semiconductor layer disposed on or above the insulation layer;
 - 5 an anchor that is disposed in an opening in the insulation layer and the first
 - 6 semiconductor layer and contacts the substrate, wherein the anchor includes a material
 - 7 that is different than the insulation layer;
 - 8 a second semiconductor layer, disposed on the anchor and on the first
 - 9 semiconductor layer; and
 - 10 a fixed electrode, formed, in part, from the first and second semiconductor layers,
 - 11 wherein the fixed electrode is affixed to the substrate via the anchor.

- 1 33. **(Previously Presented)** The device of claim 32 wherein the anchor includes
- 2 silicon nitride, silicon carbide, germanium, silicon/germanium or gallium arsenide.

- 1 34. **(Previously Presented)** The device of claim 32 wherein the insulation layer
- 2 includes silicon nitride or silicon oxide.

1 35. (Previously Presented) The device of claim 32 further including a moveable
2 electrode, juxtaposed the fixed electrode, wherein the moveable electrode is formed in part
3 from the second semiconductor layer.

1 36. (Previously Presented) The device of claim 35 wherein the insulation layer
2 includes silicon oxide and the anchor material includes silicon nitride, silicon carbide,
3 germanium, silicon/germanium or gallium arsenide.

1 37. (Previously Presented) The device of claim 35 wherein the insulation layer
2 includes silicon oxide and the anchor material includes silicon, silicon carbide, germanium,
3 silicon/germanium, or gallium arsenide.

1 38. (Previously Presented) The device of claim 35 wherein the insulation layer
2 includes silicon nitride and the anchor material includes silicon, silicon oxide, silicon
3 carbide, germanium, silicon/germanium or gallium arsenide.

1 39. (Previously Presented) The device of claim 32 wherein a substantial portion
2 of the fixed electrode overlying the anchor material is a monocrystalline silicon.

1 40. (Previously Presented) The device of claim 32 wherein a substantial portion
2 of the fixed electrode overlying the anchor material is a polycrystalline silicon.

1 41. (Currently Amended) The device of claim 32 further including:

2 a chamber, defined in part by a first encapsulation layer having at least one vent;
3 a moveable electrode disposed in the chamber and juxtaposed the fixed electrode;
4 a second encapsulation layer, deposited over or in the at least one vent, to thereby
5 seal the chamber, wherein the second encapsulation layer includes a semiconductor
6 material.

1 42. (Previously Presented) The device of claim 41 wherein the second
2 encapsulation layer includes polycrystalline silicon, porous polycrystalline silicon,
3 amorphous silicon, silicon carbide, silicon/germanium, germanium or gallium arsenide.

1 43. (Previously Presented) The device of claim 42 wherein the first encapsulation
2 layer includes polycrystalline silicon, porous polycrystalline silicon, amorphous silicon,
3 germanium, silicon/germanium, gallium arsenide, silicon nitride or silicon carbide.

1 44. (Previously Presented) The device of claim 41 wherein:
2 the first encapsulation layer is a semiconductor material that is doped with a first
3 impurity to provide a first region of a first conductivity type, and
4 the semiconductor material of the second encapsulation layer is doped with a
5 second impurity to provide a second region with a second conductivity type and wherein
6 the first conductivity type is opposite the second conductivity type.

1 45. (Previously Presented) The device of claim 41 further including a contact
2 having at least a portion that is disposed outside the chamber.

1 **46. (Previously Presented)** The device of claim 41 wherein a first portion of the
2 first encapsulation layer is a monocrystalline silicon and a second portion of the first
3 encapsulation layer is a polycrystalline silicon.

1 **47. (Previously Presented)** The device of claim 41 wherein a first portion of the
2 first encapsulation layer is a monocrystalline silicon and a second portion of the first
3 encapsulation layer is a porous or amorphous silicon.

1 **48. (Previously Presented)** The device of claim 47 wherein the second
2 encapsulation layer overlying the second portion of the first encapsulation layer is a
3 polycrystalline silicon.

1 **49. (Previously Presented)** The device of claim 48 includes a field region
2 disposed outside and above the chamber wherein the field region is a monocrystalline
3 silicon.

1 **50. (Currently Amended)** An electromechanical device comprising:
2 a substrate;
3 an insulation layer disposed on the substrate;
4 a first semiconductor layer disposed on or above the insulation layer;
5 an anchor that is disposed in an opening in the insulation layer and the first
6 semiconductor layer and contacts the substrate, wherein the anchor includes a material
7 that is different than the insulation layer;

8 a second semiconductor layer, disposed on the anchor; and
9 a fixed electrode, formed, in part, from the second semiconductor layer, wherein the
10 fixed electrode is affixed to the substrate via the anchor;
11 a moveable electrode, formed in part from the second semiconductor layer, wherein
12 the moveable electrode is disposed in a chamber wherein the chamber is defined in part by
13 a first encapsulation layer;
14 a second encapsulation layer, deposited over or in ~~the at least one~~ vent, to thereby
15 seal the chamber, wherein the second encapsulation layer includes a semiconductor
16 material;
17 a contact; and
18 a trench, disposed around at least a portion of the contact, wherein the trench is
19 disposed outside the chamber and wherein the trench includes a first material disposed
20 therein to electrically isolate the contact.

1 51. **(Previously Presented)** The device of claim 50 wherein the second
2 encapsulation layer includes polycrystalline silicon, porous polycrystalline silicon,
3 amorphous silicon, silicon carbide, silicon/germanium, germanium, or gallium arsenide.

1 52. **(Previously Presented)** The device of claim 51 wherein the first encapsulation
2 layer includes polycrystalline silicon, porous polycrystalline silicon, amorphous silicon,
3 germanium, silicon/germanium, gallium arsenide, silicon nitride or silicon carbide.

1 **53. (Previously Presented)** The device of claim 50 wherein the first material is
2 disposed on at least the outer surfaces of the trench.

1 **54. (Currently Amended)** The device of claim 53 wherein the trench includes a
2 second semiconductor material is disposed in the trench, wherein the semiconductor
3 material is surrounded by the first material in the trench and wherein the second material is
4 a semiconductor material.

1 **55. (Previously Presented)** The device of claim 53 wherein the trench is disposed
2 on an etch stop region.

1 **56. (Previously Presented)** The device of claim 53 wherein the etch stop region is
2 a silicon nitride or silicon dioxide.

1 **57. (Previously Presented)** The device of claim 53 wherein the first material is a
2 silicon nitride or silicon dioxide.

1 **58. (Previously Presented)** The device of claim 53 wherein the trench surrounds
2 the contact.

1 **59. (Previously Presented)** The device of claim 50 wherein the anchor includes
2 silicon nitride, silicon carbide, germanium, silicon/germanium or gallium arsenide.

1 60. (Previously Presented) The device of claim 50 wherein the insulation layer
2 includes silicon nitride or silicon oxide.

1 61. (Previously Presented) The device of claim 50 wherein the insulation layer
2 includes silicon oxide and the anchor material includes silicon nitride, silicon carbide,
3 germanium, silicon/germanium or gallium arsenide.

1 62. (Previously Presented) The device of claim 50 wherein the insulation layer
2 includes silicon nitride and the anchor material includes silicon, silicon oxide, silicon
3 carbide, germanium, silicon/germanium or gallium arsenide.

1 63. (Previously Presented) The device of claim 50 wherein a substantial portion
2 of the fixed electrode overlying the anchor material is a monocrystalline silicon.

1 64. (Previously Presented) The device of claim 50 wherein a substantial portion
2 of the fixed electrode overlying the anchor material is a polycrystalline silicon.

1 65. (NEW) An electromechanical device comprising:
2 a substrate;
3 an insulation layer disposed on the substrate;
4 a first semiconductor layer disposed on or above the insulation layer;

5 an anchor that is disposed in an opening in the insulation layer and the first
6 semiconductor layer and contacts the substrate, wherein the anchor includes a material
7 that is different than the insulation layer;

8 a second semiconductor layer, disposed on the anchor and on the first
9 semiconductor layer;

10 a fixed electrode, formed, in part, from the first and second semiconductor layers,
11 wherein the fixed electrode is affixed to the substrate via the anchor;

12 a moveable electrode, formed in part from the second semiconductor layer, wherein
13 the moveable electrode is disposed in a chamber wherein the chamber is defined in part by
14 a first encapsulation layer;

15 a second encapsulation layer, deposited over or in at least one vent, to thereby seal
16 the chamber, wherein the second encapsulation layer includes a semiconductor material;

17 a contact; and

18 a trench, disposed around at least a portion of the contact, wherein the trench is
19 disposed outside the chamber and wherein the trench includes an insulating material
20 disposed therein.

1 66. (NEW) The device of claim 65 wherein the second encapsulation layer includes
2 polycrystalline silicon, porous polycrystalline silicon, amorphous silicon, silicon carbide,
3 silicon/germanium, germanium, or gallium arsenide.

1 67. (NEW) The device of claim 66 wherein the first encapsulation layer includes
2 polycrystalline silicon, porous polycrystalline silicon, amorphous silicon, germanium,
3 silicon/germanium, gallium arsenide, silicon nitride or silicon carbide.

1 68. (NEW) The device of claim 65 wherein the insulating material is disposed on at
2 least the outer surfaces of the trench.

1 69. (NEW) The device of claim 68 wherein a semiconductor material which is
2 disposed in the trench, wherein the semiconductor material is surrounded in the trench by
3 the insulating material.

1 70. (NEW) The device of claim 68 wherein the trench is disposed on an etch stop
2 region.

1 71. (NEW) The device of claim 68 wherein the etch stop region is a silicon nitride
2 or silicon dioxide.

1 72. (NEW) The device of claim 68 wherein the insulating material is a silicon nitride
2 or silicon dioxide.

1 73. (NEW) The device of claim 68 wherein the trench surrounds the contact.

1 74. (NEW) The device of claim 65 wherein the anchor includes silicon nitride,
2 silicon carbide, germanium, silicon/germanium or gallium arsenide.

1 75. (NEW) The device of claim 65 wherein the insulation layer includes silicon
2 nitride or silicon oxide.

1 76. (NEW) The device of claim 65 wherein the insulation layer includes silicon
2 oxide and the anchor material includes silicon nitride, silicon carbide, germanium,
3 silicon/germanium or gallium arsenide.

1 77. (NEW) The device of claim 65 wherein the insulation layer includes silicon
2 nitride and the anchor material includes silicon, silicon oxide, silicon carbide, germanium,
3 silicon/germanium or gallium arsenide.

1 78. (NEW) The device of claim 65 wherein a substantial portion of the fixed
2 electrode overlying the anchor material is a monocrystalline silicon.

1 79. (NEW) The device of claim 65 wherein a substantial portion of the fixed
2 electrode overlying the anchor material is a polycrystalline silicon.